ROADS ANALYSIS
for the
REVISED CARIBOU NF TRAVEL PLAN

Caribou-Targhee NF

September, 2005

ROADS ANALYSIS

for the

Revised Caribou NF Travel Plan

INTRODUCTION

This roads analysis was conducted to assess the existing road system on the Caribou NF, including both classified (system) and unclassified (non-system) roads. The analysis will identify the need for and the environmental risks of these existing roads. The analysis will then make road management recommendations in regards to travel planning, including whether the road should be part of the classified road system and if so, whether the road will be managed as open or closed. Roads that are identified as not needed will be recommended for decommissioning or conversion to motorized or non-motorized trails. These recommendations will be used to develop alternatives for the Revised Caribou Travel Plan.

BACKGROUND

On January 12, 2001, the Forest Service issued the final National Forest System Road Management Rule. This rule revised regulations regarding the management, use, and maintenance of the National Forest Transportation System. Consistent with changes in public demands and use of National Forest System resources, the rule shifted the focus of road management from development and construction of new roads to managing and maintaining the existing road system. The final rule is intended to help ensure that:

- additions to the National Forest System road network are those deemed essential for resource management
- construction, reconstruction, and maintenance of roads minimize adverse environmental impacts
- unneeded roads are decommissioned and restorations of ecological processes are initiated.

The rule requires the use of a "science based" transportation analysis. The process identified in USDA Forest Service publication Miscellaneous Report FS-643 Roads Analysis: Informing Decisions about Managing the National Forest Transportation System is the approved process. The objective of this process is to provide decision makers with the information to manage road systems that are:

- safe and responsive to public needs and desires
- are affordable and efficiently managed
- have minimal ecological effects on the land

- are in balance with available funding.

PREVIOUS ROADS ANALYSIS EFFORTS

In 2002, the Caribou-Targhee National Forest completed a Forest-wide Roads Analysis for both the Caribou NF and the Targhee NF. These initial forest-wide roads analyses met the requirement of the 2001 Road Rule to complete a forest-wide roads analysis by January 2002. For the Caribou NF, the analysis was developed in conjunction with the Revision of the Forest Plan. The analysis focused on the "key" road system, which consisted mostly of the maintenance level 3-5 roads which form the backbone of the forest road system and are generally maintained for low clearance vehicles such as passenger cars. The analysis verified the need for these key roads and identified opportunities to improve them. The analysis also provided guidelines for road management, capital improvements, and road decommissioning. The analysis identified opportunities for addressing resource specific problems and risks and gave direction for completing additional project and watershed scale roads analyses.

Since the 2002 Forest wide Roads Analyses were completed, several watershed and project level roads analyses on the Caribou have been completed or are in progress. These include:

Emigration Timber Sale Roads Analysis
Twin Creeks Timber Sale Roads Analysis
McCoy Creek Watershed Roads Analysis
Aspen Range Timber Sale Roads Analysis
Three Basin Timber Sale Roads Analysis

Road management recommendations from these roads analyses will be incorporated into this Travel Plan Roads Analysis.

2003 CARIBOU NF REVISED FOREST PLAN DIRECTION

In 2003, the Caribou-Targhee National Forest completed the Caribou NF Revised Forest Plan (RFP). The RFP gives direction for managing the forest including direction for managing the transportation system as follows:

Chapter 3 Transportation- Roads, Trails and Access (RFP 3-36 & 37):

Desired Future Conditions

Transportation system provides access to the forest to meet planning and management goals including recreation, special uses, timber management, range management, minerals development, and fire protection.

The transportation system is safe, environmentally sound, and is responsive to public needs and affordable to manage and maintain.

The Forest provides a variety of road and trail opportunities, including motorized and non-motorized experiences.

Goals

1. National Forest Service roads and trails needed for long-term objectives are maintained in a manner that provides for user safety and minimizes impacts to forest resources. Roads and trails not needed for long-term objectives are decommissioned, stabilized, and restored to a natural state.

2. Forest roads and trails are managed to maintain or improve watershed condition.

3. The Forest transportation system is developed and maintained at the minimum level necessary to effectively and efficiently manage natural resources, provide user access, protect capital investments, provide for user health and safety and protect the environment.

4. The forest and local governments work cooperatively towards resolution of RS 2477 assertions.

5. Travel access information is readily available to the public.

Objectives

1. Within three years of the signing of the ROD, initiate site specific travel planning to incorporate Revised Forest Plan direction on access management.

Standards – Roads

1. Roads Analysis shall be used to inform road management decisions; including construction, reconstruction, or obliteration of roads.

Guidelines – Roads

11. Roads identified as unneeded in roads analysis should be decommissioned, stabilized and returned to production.

14. When a road is closed at the forest boundary, a vehicular turnaround should be provided on the forest to avoid impacts to adjacent non-federal lands.

Standards - Access

1. Open Motorized Route Densities (OMRD) shall not exceed the levels identified on the Plan ORMD Map. OMRD is defined as the miles of designated motorized roads and trails per square mile within a specified prescription area polygon.

5. Unless otherwise posted, motorized access is allowed for parking, wood gathering, and dispersed camping within 300 feet of an open designated road.

Additional Forest Plan Direction

Chapter 3 FOREST-WIDE GUIDANCE

Lands – Transportation and Utility Corridors (RFP 3-10)

Standards

2. Allow for essential access for repair and maintenance of facilities within energy corridors.

Recreation (RFP 3-39)

Goals

1. Developed and dispersed recreation facilities, access, and programs are consistent with the desired ROS setting and other resource goals of the area in which they are located.

Grazing Management – Livestock Grazing Permits (RFP 3-43)

Guidelines

1. Permittees may be allowed motorized access to maintain or develop range improvements assigned in their grazing permits or for other authorized administrative activities.

Chapter 4 - SUBSECTION AND PRESCRIPTION AREAS

Management Prescriptions Areas

Generally, in most of the prescription areas that allow motorized access, access is allowed on designated routes only.

2.8.3 Aquatic Influence Zone (RFP 4-47)

Roads in riparian areas are few and stable. Roads exist in riparian areas only where there are no practical alternatives.

3.1 Non-Motorized Recreation (RFP 4-54)

Users find no usable public roads or summer motorized trails

Roads – Standards

Existing system or non-system roads shall be closed and rehabilitated as soon as practicable.

3.2 Semi Primitive Recreation (RFP 4-57)

Roads and trails are designed and maintained to allow for easy passage.

Goal

Maintain or enhance semi-primitive motorized and dispersed recreation opportunities.

4.1 Developed Recreation Sites

Development ranges from native material roads and campsites….to a high degree of site modification…including paved roads…

4.2 Special Use Authorized Recreation Sites (RFP 4-65)

Roads are generally graveled, but may be paved.

4.3 Dispersed Camping Management (RFP 4-68)

Recreation - Guidelines

1. Road surfacing or hardening should be encouraged in areas of high use and evident resource damage. Both parking locations and access roads should be considered.

5.2 Forest Vegetation Management (RFP 4-71)

A road system and timber harvest activity occurs in these areas. The main road system is gravel surfaced and maintained with gentle grades. Road densities and design are compatible with multiple resource values including watershed, fish, wildlife, and recreation. Motorized use is prevalent, both for timber management and recreation.
Both high and low standard branch roads with native and gravel surfaces are visible. Many of these low standard roads are closed annually or seasonally to vehicle access. Some branch roads remain open for public access, commodity production, and Forest Service administrative use.

6.2 Rangeland Vegetation Management (RFP 4-75)

Motorized transportation is common, but some seasonal restrictions may occur. Roads, trails, and stock facilities exist.

8.1 Concentrated Development Areas (RFP 4-78)

Motorized transportation is common.
These lands are generally highly developed areas with much evidence of people, structures, roads, and often disturbed ground.

8.2.1 Inactive Phosphate Leases (RFP 4-80)

Access – Standards

1. Road construction and reconstruction shall be allowed to provide for exploration and other activities incidental to mining.

2. Road construction shall be the minimum amount necessary to allow exploration of phosphate reserves.

3. Public access shall be excluded on newly constructed roads during exploration activities. These roads shall be physically closed when no longer needed.

Access- Guidelines

Open motorized route density standards may be exceeded to allow for exploration of phosphate reserves.

8.2.2 Phosphate Mine Areas (RFP 4-63)

Generally, public access to these areas is restricted due to safety concerns. Large haul roads will be present but closed to public access.

Access – Standards

1. Public access is restricted.
2. Road construction and reconstruction shall be allowed to provide for mine development.
3. Road construction should be the minimum necessary to allow for mine development.

Access – Guidelines

1. Open motorized route densities may be exceeded if necessary to allow development of phosphate reserves.
2. Roads should be obliterated following mining activities unless site specific analysis determines that the road is needed for Forest management or public access.

TRAVEL PLAN ROADS ANALYSIS

Purpose

In 2004, the Caribou-Targhee initiated the revision of the Caribou Travel Plan (RTP). Since the Revised Travel Plan will include decisions on the management of the forest road system, it was determined that an additional forest-wide roads analysis should be completed to inform road management decisions associated with the RTP. This analysis will tier heavily to the 2002 Forest-wide Roads Analysis and focus on the lower standard roads, both classified and unclassified, on the forest. It will assess the need for each road in the management of the forest and assess their risk to resources. This analysis provides a framework to identify road related concerns and management opportunities that can be incorporated into the Revised Travel Plan FEIS.

As with the 2002 Forest-wide Roads Analysis, this analysis will be conducted at the forest-wide scale. It will divide the forest into three geographic areas to facilitate the analysis process. Descriptions and maps of these geographic areas can be found in the 2002 analysis on pages 1-4 and 1-5.

The scope of this analysis does not address the need for new road access for future management activities such as timber harvest or mineral development. These needs were discussed in the 2002 Forest-wide roads analysis and, if necessary, these needs will be addressed in a watershed or project level roads analysis and then analyzed in project level NEPA

INTERDISCIPLANARY TEAM MEMBERS

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District Members

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PROCESS

The following is the proposed process for completing the Travel Plan Revision Roads Analysis:

Improve the transportation inventory by using Geographic Information System, GIS, and Digital Orthoquads, DOQ's

Validate location and existence of current system roads

Locate and identify unclassified roads

Review the 2002 Forest wide Roads Analysis

Review issues
Review responses to the 71 questions

Add or modify responses if appropriate

Create a system both spatially (GIS) and tabular to track these roads.

Identify the needs for each road or segment
Identify the environmental risks for each road or segment
Make recommendations on each road or road segment as follows:

Current Classified Road System

Keep as open system road
Keep as closed system road

Manage as motorized system trail
Manage as closed to all motorized access

Delete from the road system

Convert to motorized or non-motorized system trail

Unclassified road system

Add as open road to the classified road system
Add as closed road to the classified road system

Manage as motorized system trail
Manage as closed to all motorized access

Do not add to the classified road system

Manage as motorized or non-motorized system trail

Review Guidelines and Opportunities from the 2002 Forest-wide Roads Analysis

Identify any new opportunities

Document the analysis in a report

Improve transportation inventory

For the 2003 Revised Forest Plan (RFP), a GIS transportation layer of the existing classified road system was used. This layer was developed using existing maps and road and trail inventories. For the Revised Travel Planning effort, an intensive effort was made to update the GIS transportation layer. The existing GIS transportation layer was superimposed over DOQ's. The roads on the GIS transportation layer could then be validated and adjusted to their actual locations. In addition, all other road scars, including obliterated roads, temporary roads, and user created roads, were located and inventoried. The non-system roads were given a unique number, which would start with the system road that they branched off of with an alphabetic extension, (20047A, 20047AA etc). Other non-system roads that entered the forest but did not branch of an existing system road were given an off forest access (ofa1, ofa2 etc) designation. Motorized and non-motorized trails were also located and inventoried.

Review the 2002 Forest wide Roads Analysis

Identify any new issues

For the 2002 analysis, nine issues were generated and addressed. (Pg 3-1) Although these were focused toward the "key" routes, six are applicable to the Travel Plan Roads Analysis.

Resources Issues

1. Affects of roads on wildlife habitat connectivity, biological corridors, and animal displacement.
2. Affect of roads on hydrologic function and water quality.
3. Affect of roads on the quantity and quality of aquatic habitat
4. Roads located on unstable soils require continuous maintenance.

Human Access Issues

1. Roads are not maintained to standard
2. Road access may not be adequate for public and resource management needs.

Four additional issues were also identified for Sub-Forest Scale Analysis (Pg 3-2). Two of these are applicable to this Travel Plan Roads Analysis.

1. Road densities within prescription areas may be outside open road and motorized trail density levels prescribed in the RFP.
2. Roads analysis should identify the minimum road system needed for public access and land management purposes.

Several public meetings were held throughout the local communities in conjunction with the Travel Plan Revision. Nine issues were generated for the Revised Travel Plan FEIS. Most of these were geared towards motorized trail access and the others were covered by the eight issues above. The Travel Plan Roads analysis will address these eight issues.

Review Responses to the 71 Questions

The following questions are part of the approved Roads Analysis Process. In reviewing the 2002 Forest wide Roads Analysis, many of the responses were answered from the forest wide scale and are still valid, particularly since both analyses are from the forest level scale. Reference will be made to the 2002 analysis and if appropriate additional responses will be made and will focus on the lower standard road system. Given the number of roads evaluated in this analysis, individual roads with specific resource concerns can be found by looking for roads with High risk for that resource concern in the tables in Appendix B.

Ecosystem Functions and Processes (EF)

EF (1) What ecological attributes, particularly those unique to the region, would be affected by roading of currently un-roaded areas?

See 2002 Caribou NF Forest wide Roads Analysis (4-17)

EF (2): To what degree do the presence, type, and location of roads increase the introduction and spread of exotic plant and animal species, insects, diseases, and parasites? What are the potential effects of such introductions to plant and animal species and ecosystem function in the area?

See 2002 Caribou NF Forest wide Roads Analysis (4-17)

EF (3): To what degree does the presence, type, and location of roads contribute to the control of insects, diseases, and parasites?

See 2002 Caribou NF Forest wide Roads Analysis (4-19)

EF (4): How does the road system affect ecological disturbance regimes in the area?

See 2002 Caribou NF Forest wide Roads Analysis (4-18)

EF (5): What are the adverse effects of noise caused by developing, using, and maintaining roads?

See 2002 Caribou NF Forest wide Roads Analysis (4-21)

Aquatic, Riparian Zone, and Water Quality (AQ)

AQ (1): How and where does the road system modify the surface and subsurface hydrology of the area?

See 2002 Caribou NF Forest wide Roads Analysis (4-2)

Following the update of the GIS transportation layer for the Revised Travel Planning effort, open road densities were recalculated for each 6th level watershed using the same rationale as in the 2002 roads analysis. The results were very similar to the 2002 analysis with only 5 watersheds identified as having high or extreme road density ratings. These were all small fringe watersheds located along the forest boundary where the densities were skewed due to their minimum size.

See Appendix B, watershed risk, for roads that have been identified as having high or medium potential for modifying surface and subsurface hydrology.

AQ (2): How and where does the road system generate surface erosion?

See 2002 Caribou NF Forest wide Roads Analysis (4-3)

Many of the lower standard roads that are evaluated in this analysis do not receive annual maintenance and have native surfacing. This increases their potential to generate surface erosion, particularly on roads that are located in areas with high erodible soils. See Appendix B, erosion risk, for roads that have been identified as having high or medium potential for generating surface erosion.

AQ (3): How and where does the system affect mass wasting?

See 2002 Caribou NF Forest wide Roads Analysis (4-4)

The areas identified in the 2002 roads analysis as having potential for mass wasting are still valid. See Appendix B, unstable risk, for roads that have been identified as having high or medium potential for mass wasting.

AQ (4): How and where do road-stream crossings influence local stream channels and water quality?

See 2002 Caribou NF Forest wide Roads Analysis (4-5)

In Appendix B, the Aquatic Influence Zone (AIZ) risk was developed based on the percentage of the road within the AIZ. This risk rating could be used to identify roads with the potential to influence stream channels and water quality.

The Caribou-Targhee NF is currently (2005) inventorying road-stream crossings on the forest that may affect native cutthroats. The inventory will collect information related to aquatic organism passage for each crossing. This information may be able to identify areas where the road stream crossings influence local stream channel and water quality.

AQ (5): How and where does the road system create potential for pollutants, such as chemical spills, oils, de-icing salts, or herbicides to enter surface waters?

See 2002 Caribou NF Forest wide Roads Analysis (4-7)

AQ (6): How and where is the road system hydrologically connected to the stream system? How do the connections affect water quality and quantity (such as delivery of sediments, thermal increases, elevated peak flows)?

See 2002 Caribou NF Forest wide Roads Analysis (4-7)

In Appendix B, the AIZ risk was developed based on the percentage of the road within the AIZ and could be used to identify roads that are hydrologically connected to streams.

The Caribou-Targhee NF is currently (2005) inventorying road-stream crossing on the forest that may affect native cutthroats. The inventory will collect information related to aquatic organism passage for each crossing. This information could identify areas where the road is hydrologically connected to the stream.

AQ (7): What downstream beneficial uses of water exist in the area? What changes in uses and demand are expected over time? How are they affected or put at risk by road-derived pollutants?

See 2002 Caribou NF Forest wide Roads Analysis (4-8)

In Appendix B, the AIZ risk was developed based on the percentage of the road within the AIZ and could be used to identify roads with the potential to affect uses and demands of beneficial uses. These risk ratings are increased where the AIZ is associated with a 303d Stream.

AQ (8): How and where does the road system affect wetlands.

See 2002 Caribou NF Forest wide Roads Analysis (4-9)

In Appendix B, the AIZ risk was developed based on the percentage of the road within the AIZ. Since wetlands are sometimes associated with AIZ, roads with high AIZ risk ratings may be roads that could affect wetlands.

AQ (9): How does the road system alter physical channel dynamics, including isolation of flood plains; constraints on channel migration; and the movement of large wood, fine organic matter, and sediment?

See 2002 Caribou NF Forest wide Roads Analysis (4-10)

AQ (10): How and where does the road system restrict the migration and movement of aquatic organisms? What aquatic species are affected and to what extent

See 2002 Caribou NF Forest wide Roads Analysis (4-10)

The Caribou-Targhee NF is currently (2005) inventorying road-stream crossing on the forest that may affect native cutthroats. The inventory will collect information related to aquatic organism passage for each crossing. The forest will use the inventory to identify problem areas and then set priorities for remediation.

AQ (11): How does the road system affect shading, litter-fall, and riparian plant communities?

See 2002 Caribou NF Forest wide Roads Analysis (4-11)

AQ (12): How and where does the road system contribute to fishing, poaching, or direct habitat loss for at-risk aquatic species?

See 2002 Caribou NF Forest wide Roads Analysis (4-12)

AQ (13): How and where does the road system facilitate the introduction of non-native aquatic species?

See 2002 Caribou NF Forest wide Roads Analysis (4-12)

AQ (14): To what extent does the road system overlap with areas of exceptionally high aquatic diversity or productivity, or areas containing rare or unique aquatic species or species of interest?

See 2002 Caribou NF Forest wide Roads Analysis (4-13)

Terrestrial Wildlife (TW)

TW (1): What are the direct effects of the road system on terrestrial species habitat?

See 2002 Caribou NF Forest wide Roads Analysis (4-13)

TW (2): How does the road system facilitate human activities that affect habitat?

See 2002 Caribou NF Forest wide Roads Analysis (4-15)

TW (3): How does the road system affect legal and illegal human activities (including trapping, hunting, poaching, harassment, road kill, or illegal kill levels)? What are the effects on wildlife species?

See 2002 Caribou NF Forest wide Roads Analysis (4-15)

TW (4): How does the road system directly affect unique communities of special features in the area?

See 2002 Caribou NF Forest wide Roads Analysis (4-16)

Economics (EC)

EC (1): How does the road system affect the agency's direct costs and revenues? What, if any, changes in the road system will increase net revenue to the agency by reducing cost, increasing revenue, or both?

See 2002 Caribou NF Forest wide Roads Analysis (4-21)

EC (2): How does the road system affect priced and non-priced consequences included in economic efficiency analysis used to assess net benefits to society?

See 2002 Caribou NF Forest wide Roads Analysis (4-22)

EC (3): How does the road system affect the distribution of benefits and costs among affected people?

See 2002 Caribou NF Forest wide Roads Analysis (4-22)

Timber management (TM)

TM (1): How does road spacing and location affect logging system feasibility?

See 2002 Caribou NF Forest wide Roads Analysis (4-22)

TM (2): How does the road system affect managing the suitable timber base and other lands?

See 2002 Caribou NF Forest wide Roads Analysis (4-23)

TM (3): How does the road system affect access to timber stands needing silvicultural treatment?

See 2002 Caribou NF Forest wide Roads Analysis (4-23)

Minerals management (MM)

MM (1): How does the road system affect access to locatable, leasable, and salable minerals?

See 2002 Caribou NF Forest wide Roads Analysis (4-24)

Range management (RM)

RM (1): How does the road system affect access to range allotments?

See 2002 Caribou NF Forest wide Roads Analysis (4-29)

Water production (WP)

WP (1): How does the road system affect access, constructing, maintaining, monitoring , and operating water diversions, impoundments, and distribution canals or pipes?

See 2002 Caribou NF Forest wide Roads Analysis (4-29)

The 2002 roads analysis stated that the existing road system is sufficient to access existing diversions, impoundments, and distribution canals and pipes. As part of the Travel Planning Roads Analysis process, the need for each road, including access needs for these types of improvements, was documented. Generally, these roads would then be recommended to stay on or be added to the road system, either as an open or closed road. They may only be open to special uses.

WP (2): How does road development and use affect the water quality in municipal watersheds?

See 2002 Caribou NF Forest wide Roads Analysis (4-31)

WP (3): How does the road system affect access to hydroelectric power generation?

See 2002 Caribou NF Forest wide Roads Analysis (4-31)

Special forest products (SP)

SP (1): How does the road system affect access for collecting special forest products?

See 2002 Caribou NF Forest wide Roads Analysis (4-32)

Special-Use Permits (SU)

SU (1): How does the road system affect managing special-use permit sites (concessionaires, communications sites, utility corridors, and so on)?

See 2002 Caribou NF Forest wide Roads Analysis (4-32)

General Public Transportation (GT)

GT (1): How does the road system connect to public roads and provide primary access to communities?

See 2002 Caribou NF Forest wide Roads Analysis (4-33)

GT (2): How does the road system connect large blocks of land in other ownership to public roads (ad hoc communities, subdivisions, in-holdings and so on)?

See 2002 Caribou NF Forest wide Roads Analysis (4-39)

GT (3) How does the road system affect managing roads with shared ownership or with limited jurisdiction? (RS 2477, cost-share, Prescriptive rights, FLPMA easements, FRTA easements, DOT easements).

See 2002 Caribou NF Forest wide Roads Analysis (4-40)

GT (4): How does the road system address the safety of road users?

See 2002 Caribou NF Forest wide Roads Analysis (4-41)

Administrative uses (AU)

AU (1): How does the road system affect access needed for research, inventory, and monitoring?

See 2002 Caribou NF Forest wide Roads Analysis (4-43)

AU (2): How does the road system affect investigative of enforcement activities.

See 2002 Caribou NF Forest wide Roads Analysis (4-43)

Protection (PT)

PT (1) How does the road system affect fuels management?

See 2002 Caribou NF Forest wide Roads Analysis (4-44)

PT (2) How does the road system affect the capacity of the Forest Service and cooperators to suppress wildfires?

See 2002 Caribou NF Forest wide Roads Analysis (4-46)

PT (3) How does the road system affect risk to firefighters and to public safety?

See 2002 Caribou NF Forest wide Roads Analysis (4-46)

PT (4) How does the road system contribute to airborne dust emissions resulting in reduced visibility and human health concerns?

See 2002 Caribou NF Forest wide Roads Analysis (4-46)

Un-roaded Recreation (UR) and Roaded Recreation (RR)

For purposes of this discussion, questions in the Unroaded and Roaded sections have been combined

UR (1), RR (1) Is there now or will there be in the future excess supply or excess demand for roaded or un-roaded recreation opportunities?

See 2002 Caribou NF Forest wide Roads Analysis ((4-47)

UR (2), RR (2) Is developing new roads into un-roaded areas, decommissioning of existing roads, or changing the maintenance of existing roads causing substantial changes in the quantity, quality, or type of un-roaded or roaded recreation opportunities?

See 2002 Caribou NF Forest wide Roads Analysis (4-50)

UR (3), RR (3) What are the effects of noise and other disturbances caused by developing, using, and maintaining roads on the quantity, quality, and type of un-roaded and roaded recreation opportunities?

See 2002 Caribou NF Forest wide Roads Analysis (4-54)

UR (4), RR (4) Who participates' in un-roaded and roaded recreation in the area affected by construction, maintaining and decommissioning roads?

See 2002 Caribou NF Forest wide Roads Analysis (4-54)

UR (5), RR (5) What are these participants' attachments to the area, how strong is their feelings, and is alternative opportunities and locations available?

See 2002 Caribou NF Forest wide Roads Analysis (4-54)

Passive-Use Value (PV)

To stay in line with the 2002 Forest wide Roads Analysis, PV (1) – (4) is combined into the following question:

PV (1)-PV (4) Who currently holds passive use values and what will be the potential effect, positive and negative, of building, closing, or decommissioning roads on passive-use values?

See 2002 Caribou NF Forest wide Roads Analysis (4-55)

Social issues (SI)

SI (1) What are people's perceived needs and values for roads? How does road management affect people's dependence on, need for, and desire for roads?

See 2002 Caribou NF Forest wide Roads Analysis (4-56)

SI (2) What are people perceived needs and values for access? How does road management affect people's dependence on, need for, and desire for access?

See 2002 Caribou NF Forest wide Roads Analysis (4-56)

SI (3) How does the road system affect access to paleontological, archaeological, and historical sites?

See 2002 Caribou NF Forest wide Roads Analysis (4-57)

SI (4) How does the road system affect cultural and traditional uses (such as plant gathering, and access to traditional and cultural sites) and American Indian treaty rights.

See 2002 Caribou NF Forest wide Roads Analysis (4-57)

SI (5) How are roads that are historic sites affected by road management?

See 2002 Caribou NF Forest wide Roads Analysis (4-57)

SI (6) How is community social and economic health affected by road management (for example, lifestyles, businesses, tourism industry, infrastructure maintenance)

See 2002 Caribou NF Forest wide Roads Analysis (4-57)

SI (7) What is the perceived social and economic dependency of a community on an un-roaded area versus the value of that un-roaded area for its intrinsic existence and symbolic values?

See 2002 Caribou NF Forest wide Roads Analysis (4-58)

SI (8) How does road management affect wilderness attributes, including natural integrity, natural appearance, opportunities for solitude, and opportunities for primitive recreation?

See 2002 Caribou NF Forest wide Roads Analysis (4-59)

SI (9) What are the traditional uses of animal and plants species within the area of analysis?

See 2002 Caribou NF Forest wide Roads Analysis (4-59)

SI (10) How does road management affect people's sense of place?

See 2002 Caribou NF Forest wide Roads Analysis (4-59)

Civil Rights and Environmental Justice (CR)

How does the road system, or its management, affect certain groups of people (minority, ethnic, cultural, racial, disabled, and low-income groups)?

See 2002 Caribou NF Forest wide Roads Analysis (4-60)

NEEDS, RISKS AND RECOMMENDATION

Three tables, similar to the 2002 Forest-wide Roads Analysis, were developed to track each road or road segment. The roads or segments were grouped by geographic area, district, and are then listed numerically.

Needs Table – Appendix A
Each road or segment was analyzed as far as its value for providing access for forest management activities. Several management activities, including administration and special use, recreation, timber, range, minerals, private land access, and fuel treatment were used to assess needs. The needs were assessed during meetings with each of the three district staffs.

Risk Table – Appendix B
Each road or segment was also analyzed as to its potential risk to the environment. Risk categories included watershed risk, erosion risk, mass stability risk, and risks to various wildlife. Appropriate GIS layers were used to identify areas of concern and to set a risk to each road.

Recommendation Table – Appendix C
Finally, a recommendation was developed for each road or segment as to how it was to be managed. These recommendations were used in the development of alternatives in the RTP FEIS.
Maps 1-3 show the existing road system, both system and non system roads.
Maps 4-6 show the proposed road system, both system and non system based on the recommendations in Appendix C.

None of the maps show the trail system, so some of the roads shown as closed or deleted may be managed as part of the motorized trail system.

These maps are too small to show road numbers and allow correlation with the roads listed in the tables but give a good comparison between the existing and recommended road system. Large scale maps are available in the Supervisor's Office in Idaho Falls for review.

MILEAGE STATISTICS FOR ROAD RECOMMENDATIONS

The following shows some statistics based on the recommendations in the table in Appendix C.

Existing System Miles	1795 mi
Keep as system road	1350 mi
Keep as open road	929 mi
2002 Key roads (FRAP)	449 mi
Keep as closed road	420 mi
Manage as motorized trail	180 mi
Delete from road system	445 mi
Convert to motorized trail	89 mi
Obliterated or doesn't exist	59 mi
Non-System Miles	363 mi
Add to road system	84 mi
Add as open road	41 mi
Add as closed road	43 mi
Manage as motorized trail	14 mi

Do not add to road system	278 mi
Convert to motorized trail	40 mi

Roads or segments of roads identified to be deleted from or not added to the classified road system as a system road and not converted to the trail system would be prioritized for decommissioning.

GUIDELINES AND OPPORTUNITIES

The guidelines shown in the 2002 Forest-wide Roads Analysis on pages 5-6 through 5-8 are still valid. These guidelines provide direction for decommissioning roads, prioritizing capital improvements, performing road management and assessing building roads in roadless areas.

Opportunities for addressing problems and risks shown on pages 5-9 through 5-11 of the 2002 Forest wide Roads Analysis are also still valid. Opportunities for travel management, watershed, aquatic, fuel reduction and deferred maintenance are discussed.

The eleven high priority opportunities shown on pages 5-11 and 5-12 were specific to the key routes assessed in the 2002 Forest wide Roads Analysis. Two of the priorities have already been accomplished and another one is scheduled for 2006. Additional high priority opportunities identified in this and other project level analyses include:

Forest-wide

Implement the decisions of the Revised Travel Plan, specifically decommissioning roads identified as unneeded and closing road identified to remain as a closed system road.

Replace, remove or improve culverts identified in the 2005 culvert inventory as being barriers to aquatic organism passage.

Caribou Section

FR 20188 - Barnes Creek Road – Relocate/replace the 3 fords at the beginning of the road. Improve drainage and alignment and add spot surfacing to reduce impacts to water quality and aquatic habitat.

FR 20118 - Willow Creek Road – Relocate 0.25 mi of the road to avoid a riparian Area, improve the stream crossing, provide safe access, and reduce road maintenance.

FR 20126 - Johnson Creek Road – Acquire ROW across private and state lands and relocate road as appropriate and improve drainage and surface to provide public access and reduce impacts to water quality and aquatic habitat.

Bear River Section

FR 20415 - Egan Basin Road – Relocate eastern termini out of riparian zone, improve drainage and add surfacing to improve access, and reduce impacts to water quality and aquatic habitat.

FR 20406 - Hillyard Canyon Road – Improve drainage and add surfacing to improve safety and access.

FR 20402 - Cheatbeck Road – Improve drainage and add surfacing to improve safety and reduce annual maintenance.

I-15 Corridor Section

No additional high priorities identified

KEY FINDINGS

Resources Issues

Affects of roads on wildlife habitat connectivity, biological corridors, and animal displacement.

This issue was addressed for "key roads" in the 2002 Forest-wide Roads Analysis (6-1). Affects on wildlife habitat, biological corridors, and animal displacement from the balance of the road system were similar to affects from the "key roads."

Affect of roads on hydrologic function and water quality.

This issue was addressed in the 2002 Forest-wide Roads Analysis (6-1). Roads within an Aquatic Influence Zone (AIZ) have a higher potential to affect hydrological function and water quality. In Appendix B, each road or segment was given a watershed risk based on percent of the road within an AIZ.

Affect of roads on the quantity and quality of aquatic habitat

This issue was addressed in the 2002 Forest-wide Roads Analysis (6-2). Roads within an AIZ have a higher potential to affect quantity and quality of aquatic habitat. In Appendix B, each road or segment was given a watershed risk based on percent of the road within an AIZ. In addition, ongoing assessments of existing road/stream crossings will be used to evaluate aquatic organism passage and prioritize which crossings need to be improved.

Roads located on unstable soils require continuous maintenance.

This issue was addressed in the 2002 Forest-wide Roads Analysis (6-2). Roads located on unstable soils were identified in Appendix B and given a risk rating based on the percentage of the road on unstable soils.

Road densities within prescription areas may be outside open road and motorized trail density levels prescribed in the RFP.

This issue was not addressed in the 2002 Forest-wide Roads Analysis, but was identified as an issue for future sub-forest scale roads analysis. The OMRD levels include motorized trails so it is not a totally road issue. However, the road management recommendations in Appendix C were included in Alternative 5 of the Revised Travel Plan FEIS and meet the OMRD levels prescribed in the RFP.

Human Access Issues

Roads are not maintained to standard

This issue was addressed in the 2002 Forest-wide Roads Analysis (6-3). The existing road maintenance funding is not adequate for maintaining the road system to standard. Implementing travel plan direction, including decommissioning roads will also stretch available road maintenance funding. The forest needs to continue to find opportunities to accomplish road maintenance or improvements through timber sales, cooperative agreements with counties, grants or other funding.

Road access may not be adequate for public and resource management needs.

This issue was addressed in the 2002 Forest-wide Roads Analysis (6-3). The road management recommendations in Appendix C were based on resource management needs including public access. Additional future access needs for forest management will be addressed by project level roads analysis and appropriate NEPA, if necessary.

Roads analysis should identify the minimum road system needed for public access and land management purposes.

This issue was not addressed in the 2002 Forest-wide Roads Analysis, but was identified as an issue for future sub-forest scale roads analysis. The road management recommendations in Appendix C were based on resource management needs including public access. Unneeded roads were identified and recommended to be deleted or not added to the road system. These roads would then be prioritized for decommission.

Revised Caribou NF

Travel Plan Roads Analysis

Appendix A

Road Needs Values Table

Appendix A – Road Needs Values

Functional Class

High – Arterial
Moderate – Collector
Low – Local

Administrative Use Value

High – Access to developed special use site
Moderate – Access to power lines, municipal water system

Recreational Use Value

High – Access to developed sites
Moderate – Access to dispersed recreation sites

Timber Use Value

High – Primary access to timber prescription lands
Moderate – Secondary access to timber prescription lands, single use timber access roads
Low – Firewood access

Range Use Value

High – Access to developed facilities – corrals, water developments, range cabins
Moderate – Access to range allotments, permittee camps

Minerals Use Value

High – Access to operating mines, current exploration
Moderate – Access to inactive leases

Private Land Value

High – Access to developed Private Inholdings
Moderate – Access to Private Inholdings

Fuel Treatment Value

High – Access to Urban interface areas
Moderate – Access to other fuel reduction areas

Total Needs Value

High – A high value on any of the above needs
Moderate – A moderate value on any of the above needs (no high)
Low – Only low values on any of the above needs

Insert Appendix A here

Revised Caribou NF

Travel Plan Roads Analysis

Appendix B

Resource Risk Values Table

Appendix B – Resource Risk Values

Watershed Risk

Used percent of road length within AIZ
70 -100 % of length within AIZ = High Risk
40 - 70 % of length within AIZ = Moderate Risk
0 - 40 % of length within AIZ = Low Risk

If AIZ was along a 303d stream risk rating increased one level

Unstable Soils Risk

Used percent of road length that crossed unstable soils
50 – 100 % of length on unstable soils = High Risk
0 - 50 % of length on unstable soils = Moderate Risk
0 % of length on unstable soils = Low Risk

Erodible Soils Risk

Used percent of road length that crosses erodible soils (HHH or HHM)
50 – 100 % of length on erodible soils = High Risk
10 - 50 % of length on erodible soils = Moderate Risk
0 - 10 % of length on erodible soils = Low Risk

Roads with gravel or paved surfaces were reduced one level of risk

Wildlife Risk

Big Game

Security and Vulnerability – Since OMRD set in the RFP, it was assumed that this risk was mitigated

Migration corridors – Roads crossing migration corridors were given a High or Moderate Risk rating based on ratings from the 2002 Forest wide Roads Analysis

Goshawk

Roads within 200 Ac (500 meters) of known Goshawk nest were noted (Y) and given a Low Risk rating.

Falcon

Roads within 2 miles of known Falcon nests were noted (Y) and given a Low Risk rating

Northern Leopard Frog

Roads within 1500 meters of a known population of Northern Leopard Frog were noted (Y) and given a Moderate Rating.

Western Boreal Toad

Roads within 4000 meters of a known population of Western Boreal Toads were noted (Y) and given a Moderate Rating (except for Hwy 34 which was given a High Rating due to highway speeds).

Total Resource Risk

High Risk – If a High Risk was given for watershed, unstable soils, erodible soils, or wildlife.
Moderate Risk – If a moderate risk was given for watershed, unstable soils, erodible, soils, or wildlife.
Low Risk – If low risk was given for watershed, unstable soils, erodible soils, and wildlife.

Insert Appendix B here

Revised Caribou NF

Travel Plan Roads Analysis

Appendix C

Road Management Recommendations Table

Appendix C – Road Management Recommendations

Definitions

Operational Maintenance Level – The maintenance level that the road is currently being maintained.

Objective Maintenance Level – The maintenance level that the road needs to be to meet the road management objective.

Maintenance Levels

1 – Basic custodial care (closed) – Assigned to intermittent service roads during the time that they are closed
2 – High clearance vehicles – Assigned to roads operated for use by high clearance vehicles.
3 – Suitable for passenger cars – Assigned to roads operated and maintained for travel by a prudent driver in a standard passenger car.
4 – Moderate degree of user comfort – Assigned to roads that provide a moderate degree of user comfort and convenience at moderate travel speeds.
5 – High degree of user comfort – Assigned to roads that provide a high degree of user comfort and convenience. (Usually paved)

Functional Class

A – Arterial – Provide service to large areas and usually connects with other arterial roads or public highways.
C – Collector – Provides service to smaller land areas than an arterial road. It usually connects forest arterial roads to local forest roads or terminal facilities.
L – Local – Connects terminal facilities with forest collector or arterial roads or public highways.

Recommendation Definitions

FRAP – Used to designate "key" roads that were evaluated in the 2002 Forest-wide Roads Analysis
KEEP AS OPEN ROAD – Road currently on the forest road system that is recommended to remain in the system as an open road.
KEEP AS CLOSED ROAD – Road currently on the forest transportation system that is recommended to remain in the system as a closed road.
DEL AS RD – Road currently on the transportation system that is recommended to be deleted from the system.
ADD TO SYS – OPEN ROAD – Road not currently on the transportation system that is recommended to be added to the system as an open road.
ADD TO SYS – CLOSED ROAD – Road not currently on the transportation system that is recommended to the system as a closed road.
DO NOT ADD – Road not currently on the transportation system that is not recommended to be added to the system.
MAN AS MOT TRAIL – Road that has been recommended to be managed as closed or not added to the system, but also recommended t be managed as a motorized trail.
CONV TO MOT TRAIL – Road that is currently on the transportation system that is recommended to be deleted from the system, but also recommended to be converted to a motorized trail.
DISP REC – Road used primarily for dispersed recreation.
SU – Road used primarily for special use
APPENDED TO – The miles associated with this road or segment have been appended to the referenced road.
INCORPORATED INTO – The miles associated with this road or segment have been incorporated into the referenced road.

Insert Appendix C here